



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,820	02/12/2002	Yu-Jung Cheng	13732.36US01	8823
24504	7590	09/30/2005	EXAMINER	
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			DENNISON, JERRY B	
			ART UNIT	PAPER NUMBER
			2143	

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/075,820

Applicant(s)

CHENG ET AL.

Examiner

J. Bret Dennison

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Action is in response to Amendment for Application Number 10/075,820 received on 12 February 2002.
2. Claims 1-16 are presented for examination.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Van Gong (U.S. Patent Number 6,370,565).

Art Unit: 2143

3. Regarding claims 1 and 9, Van Gong discloses a system and method of real-time interaction for multiple objects, comprising:

a scene dividing module for dividing a main scene into a first scene and a second scene, and determining the adjacent area of the first scene and the second scene (Van Gong, col. 6, lines 43-51);

a first control unit for controlling at least one object in the first scene (Van Gong, col. 6, lines 10-15);

a second control unit for controlling at least one object in the second scene (Van Gong, col. 6, lines 10-15); and

a synchronization module to enable the first control unit to synchronize with the second control unit if the status incidence of the objects controlled by the first control unit or the second control unit overlaps the adjacent area of the first scene and the second scene (Van Gong, col. 6, lines 43-51, col. 7, lines 25-40, col. 8, lines 20-35).

4. Regarding claims 2 and 10, Van Gong discloses the limitation, substantially as claimed, as described in claims 1 and 9, including wherein the scene dividing module further divides the first scene into a first sub-scene and a second sub-scene if the number of objects controlled by the first control unit is more than a load threshold (Van Gong, col. 7, lines 44-59).

5. Regarding claims 3 and 11, Van Gong discloses the limitation, substantially as claimed, as described in claims 2 and 10, including wherein the objects in the first sub-

scene are controlled by the first control unit, and the objects in the second sub-scene are controlled by a third control unit (Van Gong col. 7, lines 33-59).

6. Regarding claims 4 and 12, Van Gong discloses the limitation, substantially as claimed, as described in claims 1 and 9, including wherein the objects controlled by the first control unit is taken over by a third control unit if a failure occurs in the first control unit (Van Gong, col. 9, lines 1-13, Van Gong teaches redistribution by the master server at a programmable time to avoid failure).

7. Regarding claims 5 and 13, Van Gong discloses the limitation, substantially as claimed, as described in claims 1 and 9, including wherein the scene dividing module divides the main scene into the first scene and the second scene according to the potential visible set and grid (Van Gong, col. 6, lines 50-53, Van Gong teaches dividing the scene based on position information).

8. Regarding claims 6 and 14, Van Gong discloses the limitation, substantially as claimed, as described in claims 1 and 9, including wherein the first control unit or the second control unit is responsible for handling the behavior of objects (Van Gong, col. 6, lines 10-45, Van Gong teaches that each server maintains objects and their interactions).

9. Regarding claims 7 and 15, Van Gong discloses the limitation, substantially as claimed, as described in claims 1 and 9, including wherein the first control unit or the second control unit is responsible for handling the interaction between objects (Van Gong, col. 6, lines 35-40).

10. Regarding claims 8 and 16, Van Gong discloses the limitation, substantially as claimed, as described in claims 1 and 9, including wherein the first control unit or the second control unit is responsible for handling the events produced by scenes (Van Gong, col. 9, lines 50-65).

***Response to Amendment***

Applicant's arguments and amendments filed on 6/27/2005 have been carefully considered but they are not deemed fully persuasive.

Applicant's arguments with respect to claims 1 and 9 have been fully considered but they are not persuasive. Applicant's arguments include the failure of previously applied art to expressly disclose the teachings of "a synchronization module to enable the first control unit to synchronize with the second control unit if the status incidence of the objects controlled by the first control unit or the second control unit overlaps the adjacent area of the first scene and the second scene" [see Applicant's Response, page 6].

The Specification of the present application defines control units to be server programs or groups of server programs [see Specification page 5, lines 23-37].

The Specification of the present application defines status incidence as representing the range that can be affected by the behavior of an object [see Specification, page 6, 2<sup>nd</sup> paragraph]. A reasonable interpretation of a status incidence of an object is the area of interest and interaction of the object.

The Specification of the present application also details the above synchronizing limitation explaining how the synchronizing occurs, by stating that the control units synchronize and that the object having the overlapping status incidence will be taken over by the second control unit [see Specification, page 6, paragraph 3].

Examiner interprets this as, for example, a first server controlling a first object in a first scene, and a second server controlling a second object in a second scene, when the first object moves from the first scene to the second scene, the first and second servers synchronize and the first object is taken control of by the second server.

As shown in the above rejection, Van Gong disclosed a distributed virtual environment in which entities are divided into interaction groups (Van Gong, col. 7, lines 50-55) that are mapped to different servers (Van Gong, col. 8, lines 35-40). Van Gong also disclosed that the servers manage the interaction groups (Van Gong, col. 8, lines 45-46). Van Gong disclosed that the master Aura Manager recomputes the group distribution and updates the servers of the group distribution every specified time period in order to dynamically maintain the interaction groups (Van Gong, col. 8, lines 65 through col. 9, line 4). Van Gong also goes on to explain that this dynamic management is based on the fact that entities are constantly moving within the virtual world and this function avoids the problem of overloading a particular server when the

entities have moved close to each other (Van Gong, col. 9, lines 4-6). Examiner interprets this as, when entities move to the same area of interest (or scene) their servers must synchronize for the system to work, and also the entity that moves to a different area of interest gets taken control of by the server that manages the interaction group that the entity has entered.

Thus, Applicant's arguments drawn toward distinction of the claimed invention and the prior art teachings on this point are not considered persuasive. It is also clear to the Examiner that Van Gong clearly taught the independent claims of the Applicant's claimed invention.

Applicant's arguments with respect to claims 1 and 9 are deemed moot in view of the following new grounds of rejection, necessitated by Applicant's amendment to the claims, which significantly affected the scope thereof.

Furthermore, as it is Applicant's right to continue to claim as broadly as possible their invention, it is also the Examiner's right to continue to interpret the claim language as broadly as possible. It is the Examiner's position that the detailed functionality that allows for Applicant's invention to overcome the prior art used in the rejection, fails to differentiate in detail how these features are unique. As it is extremely well known in the networking art as already shown by Van Gong as well as other prior arts of records disclosed, "object interaction between control units in a distributed environment" is taught as well as other claimed features of Applicant's invention. By the rejection above, the applicant must submit amendments to the claims in order to distinguish over



the prior art use in the rejection that discloses different features of Applicant's claimed invention.

It is the Examiner's position that Applicant has not yet submitted claims drawn to limitations, which define the operation and apparatus of Applicant's disclosed invention in manner, which distinguishes over the prior art.

Failure for Applicant to significantly narrow definition/scope of the claims and supply arguments commensurate in scope with the claims implies the Applicant intends broad interpretation be given to the claims. The Examiner has interpreted the claims with scope parallel to the Applicant in the response and reiterates the need for the Applicant to more clearly and distinctly define the claimed invention.

### ***Conclusion***

**Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Bret Dennison whose telephone number is (571) 272-3910. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Art Unit: 2143

published applications may be obtained from either Private PAIR or Public PAIR.


Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).



J. B. D.  
Patent Examiner  
Art Unit 2143



**DAVID WILEY**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100